

Serial No. 10/718,963
Docket No. 3994648-129161C (CPP 0004 NA)
Response date April 25, 2006
Response to Office Action of January 25, 2006

REMARKS

Status of claims

Applicant thanks the Examiner for the consideration given to the present application. Claims 6-9 are amended to correct some formalities. Support for the amendments is found in the specification and drawings. No new matter has been added. Claims 6-9 are pending in the present application.

Rejection of Claims under 35 U.S.C. §102

Claim 9 has been rejected under 35 U.S.C. §102(b) as being anticipated by Dickhut (USPN 4,718,844). The Examiner stated that Dickhut teaches all the limitations of claim 9. Applicant respectfully traverses this rejection.

Under 35 USC §102, a single prior art reference must, either expressly or inherently, teach each and every element of the claims. MPEP 2131. Applicant respectfully asserts that Dickhut does not, expressly or inherently, teach every element of claims as required by §102. Applicant's independent claim 9 recites a method for delivering uniform vacuum pressure in the process of thermoforming a corrugated plastic pipe in a mold, comprising, *inter alia*, forming an **air-tight manifold** by providing an outer cover on the external lateral surface, the **manifold** being ported to a plurality of slits in the corrugation and having a depth and a width, wherein the **depth is greater than the width** of the manifold. Applicant's specification teaches that the present invention provides a method "of accurately providing a large and uniform vacuum at the mold surface by defining the shape and size of the channel." par. [0005]. The specification also discloses that one would assume the pressure drop along a channel with a larger area is always smaller than the pressure drop along a channel with a smaller area. However, the specification discloses that this assumption is false. The specification further teaches,

It is much more efficient for channel depth to be larger than channel width because the change in pressure varies with the 3rd power of the channel depth and only linearly with the channel width. A narrower and deeper channel with same area will be superior to a wider and more shallow channel for purposes of

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optimizing the force and uniformity of negative vacuum pressure at the mold surface. Similarly, a wider channel with smaller depth might have a larger area than one which presents much less resistance to flow.

par. [0005].

The Examiner alleges that Dickhut's channel members 34 teach Applicant's manifold 7. However, Applicant's claim recites the manifold 7 as having a depth that is greater than a width. As clearly shown in FIG. 3, of Dickhut, Dickhut's channel members 34 have a width that is greater than its depth, which is contrary to Applicant's claimed manifold. Thus, Dickhut does not teach each and every claim limitation of Applicant's claim 9. In fact, Applicant submits that Dickhut actually teaches away from Applicant's claimed method of forming a manifold with a depth greater than its width. Accordingly, Applicant respectfully requests the withdrawal of the rejection of independent claim 9 under 35 U.S.C. §102.

Rejection of Claims under 35 U.S.C. §103

Claims 6-8 have been rejection under 35 U.S.C. §103(a) as being unpatentable over Dickhut (USPN 4,718,844). Applicant respectfully traverses these claim rejections and submit that the required burden of establishing a prima facie case of obviousness under §103 has not been met. MPEP §2145.

In order to establish a prima facie case of obviousness under §103, the Examiner has the burden of showing, by reasoning or evidence, that: 1) there is some suggestion or motivation, either in the references themselves or in the knowledge available in the art, to modify that reference's teachings; 2) there is a reasonable expectation on the part of one of ordinary skill in the art that the modification or combination has a reasonable expectation of success; and 3) the prior art references (or references when combined) teach or suggest all the claim limitations. MPEP §2145.

The Examiner acknowledges in the Office Action that Dickhut "appears to be silent to the claimed slots." Page 4, line 10. However, the Examiner incorrectly assumes that the claimed slots are an apparatus limitation that does not materially affect the claimed method because Dickhut clearly applies vacuum through the slits, which would cause the plastic to conform to

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the corrugation in the same way as claimed in the instant application. Thus, the Examiner concludes that the claimed method appears to be prima facie obvious over Dickhut. This is a conclusion based upon an unfounded assumption by the Examiner.

Applicant's independent claim 6 recites a method of delivering uniform vacuum pressure in the process of thermoforming a corrugated plastic pipe in a mold, comprising, *inter alia*, **forming a manifold by providing an outer cover on the external lateral surface, the manifold being ported to a plurality of slits formed in the in the corrugation through a plurality of slots in the mold, the slots having a large cross-sectional area relative to the aggregate area of the slits and exerting an essentially uniform negative pressure on each one of the plurality of slots, such that the change in negative pressure across the slots is small relative to the change in negative pressure across the slits.**

First, Applicant respectfully submits that the burden of meeting a prima facie case is greater than presenting a reference that "appears" to make a prima facie case of obviousness under 35 U.S.C. 103. The Examiner must show the prior art references (or references when combined) teach or suggest all the claim limitations, not to just "appear" to do so. MPEP §2145.

Second, Applicant submits that not only is Dickhut silent with regard to the Applicant's claimed slot, Dickhut is also completely silent as to the slots having a large cross-sectional area relative to the aggregate area of the slits. Moreover, Dickhut is also void of any teaching of the method limitation, "exerting a negative pressure on each of the slots," because Dickhut does not teach the slots. Also, Dickhut does not teach or suggest Applicant's method limitation that the exertion of the negative pressure on the slots is "such that the change in negative pressure across slots is small relative to the change in negative pressure across the slits." In fact, the Examiner does not even address them, let alone provide any reasoning or evidence as to how these are taught by Dickhut. These two limitations are clearly method limitations and not apparatus limitations and thus are also materially affect the claimed method.

In *In re Fine*, the Federal Circuit held that a reference did not render the claimed combination prima facie obvious because, *inter alia*, the Examiner ignored a material, claimed, temperature limitation which was absent from the reference. *In re Fine*, 873 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). Moreover, the mere fact that prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art

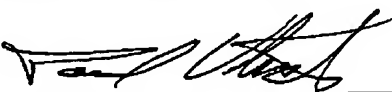
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suggested the desirability of the modification. It is impermissible to use the claimed invention as an instruction manual or "template" to piece together the teachings of the prior art so that the claimed invention is rendered obvious. *In re Fritsch*, 23 USPQ2d 1780, 1783-4 (Fed. Cir. 1991). Applicant respectfully submits that several of claim 6's method limitations as set forth above are not taught or suggested by Dickhut and the limitation "manifold being ported to slits through slots" does materially affect the claimed method and is also not taught or suggested by Dickhut. Thus, Dickhut does not render the claimed method prima facie obvious. Accordingly, Applicant respectfully request that the rejection of claim 6 under 35 U.S.C. 103 be withdrawn. As claims 7 and 8 depend from claim 6, the rejections of claims 7 and 8 should also be withdrawn.

CONCLUSION

Applicants respectfully submit that the present application is in condition for allowance. The Examiner is encouraged to contact the undersigned to resolve efficiently any formal matters or to discuss any aspects of the application or of this response. Otherwise, early notification of allowable subject matter is respectfully solicited.

Respectfully submitted,
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